

# Curriculum Vitae: Alyssa A. Goodman

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**Origin** July 1, 1962, New York, New York

## Education

1984 Sc.B. Sc.B. Massachusetts Institute of Technology, Physics  
Thesis: *Grain Alignment in Molecular Clouds* (Advisor: C. Alcock)  
1986 A.M. Harvard University, Physics  
1989 Ph.D. Harvard University, Physics  
Thesis: *Interstellar Magnetic Fields: An Observational Perspective*  
(Advisor: P. Myers)

## Academic Experience

2015– Robert Wheeler Willson Professor of Applied Astronomy, Harvard University  
1999–2015 Professor, Harvard University Astronomy Department  
1995– Research Associate, Smithsonian Astrophysical Observatory  
2017–2021 Co-Director for Science, Radcliffe Institute for Advanced Study  
2017 Visiting Professor, University of Vienna  
2016–2017 Edward, Frances, and Shirley B. Daniels Fellow, Radcliffe Institute for Advanced Study  
2009–2010 Scholar-in-Residence, WGBH Boston (consultant role)  
2008–2009 Scholar-in-Residence, WGBH Boston (sabbatical)  
2005–2008 Founding Director, Harvard Initiative in Innovative Computing  
2002–2010 Principal Investigator, The COMPLETE Survey of Star-Forming Regions  
2001–2002 Visiting Professor, Yale University Astronomy Department (sabbatical)  
1996–1999 Associate Professor, Harvard University Astronomy Department  
1995–1997 Head Tutor, Harvard University Astronomy Department  
1992–1996 Assistant Professor, Harvard University Astronomy Department  
1989–1992 Post-doctoral Fellow, University of California, Berkeley  
1984–1989 Research Assistant, Harvard-Smithsonian Center for Astrophysics  
1983 Summer Fellow, NASA-Goddard Institute for Space Studies

## Other Professional Experience

- 2020– Founder and President, glue solutions inc.
- 2021- Founder and Director, Path-to Foundation

## Honors, Awards, and Elected Positions

- 2020 Franke Drake Lectureship, Green Bank Observatory (executed 2022)
- 2020 Fellow, American Astronomical Society (AAS)
- 2019 Tinsley Lecturer, University of Texas 2017 Salpeter Lecturer, Cornell University
- 2015 Scientist of the Year, Harvard Foundation
- 2014 Pappalardo Lecturer, Massachusetts Institute of Technology
- 2014 Benjamin Dean Lecturer, California Academy of Sciences
- 2013 Bishop Lecturer, Columbia University
- 2009 Fellow, American Association for the Advancement of Science (AAAS)
- 2009 Collins Lecturer, Massachusetts General Hospital
- 2008 Inaugural “Scholar-in-Residence” at WGBH, Boston
- 2008– Microsoft Academic Partner 2008 Apple Science Innovator Award
- 2008 Chair, Astronomy Section of the AAAS
- 2006 NCSA Distinguished Lecturer, National Center for Supercomputer Applications
- 2005 Dean’s Distinguished Lecturer, Harvard School of Public Health
- 2004 Sturm Lecturer, Wesleyan University
- 1998 Bok Prize, Harvard University
- 1997 Newton Lacy Pierce Prize, American Astronomical Society
- 1994–2000 National Science Foundation Young Investigator
- 1994 Pedagogical Innovation Award, Harvard University
- 1993–1995 Alfred P. Sloan Fellow
- 1989–1991 President’s Fellowship, University of California, Berkeley
- 1990 First Prize Paper, NATO ASI on Star Formation
- 1986–1989 Amelia Earhart Fellowships from Zonta International
- 1985 Francis Lee Freidman Award in Physics, Harvard University
- 1983 Sigma Pi Sigma, MIT

## Society Memberships

American Association for the Advancement of Science; American Association of University Professors; American Astronomical Society; International Astronomical Union; Association for Computing Machinery; IEEE; URSI Commission J (Radio Astronomy)

## Advisory & Review Committees

NASA-Infrared Space Observatory Key Projects Review (1992); Scientific Working Group for NRAO Green Bank Telescope (1992–99); Arecibo Users and Scientific Advisory Committee (1993–96); NSF Site Review for Center for Particle Astrophysics (1994); NASA Astrophysics Data Program Review (1995); Smithsonian Astrophysical Observatory Time Allocation Committee (1995–97); NSF-Caltech Submillimeter Observatory Review (1996); NSF Galactic Astronomy ISM Panel (1996, 2000 (chair)); M4 Satellite Science Advisory Group, Chair (1997, 2000); Harvard University Faculty Council (1997–98); AAS Publications Board (1998–2001); United States Square Kilometer Array Consortium Representative (1999–); National Academy of Science’s Committee on Astronomy and Astrophysics (2000–2003); NASA-SIRTF Legacy Review, Panel Chair (2000); AAS Committee on Astronomy and Public Policy (2000–6); NRAO VLA/VLBA Time Allocation Committee (2001–4); AUI NRAO Director Search Committee (2002); Harvard University Provost’s Committee on Science (2002–3); Task Force on Science and Technology (Harvard, 2003–4); Center for Astrophysics Director Search Advisory Committee (2003–4); Spitzer Science Center Oversight Committee (2003–6); Harvard Commission of Inquiry (2004–5, 2007–8); Harvard Subcommittee on Quantitative Reasoning (2002–2008); Goldwater Scholarship Selection Committee (2004–); Harvard FAS Dean Search Advisory Committee (2006–7); AAS Chambliss Award (for Textbook Writing) Committee (2006–7); Yale University Visiting Committee for Astronomy (2008); AAAS Chair (2008); AAAS Board (2009); NRC board on Research Data and Information (2009–2012); VAO Scientific Advisory Committee (2009–2012); ALMA North American Science Advisory Committee (2009–2012); Graduate Admissions, Chair (2011, 2014); Mentoring Committee, Chair (2011); Harvard Library Digital Scholarship Committee (2011–2012); Committee on Professional Conduct (2011–); HILT Advisory Committee (2012–2014); Faculty Advisor to the Communication Science Conference (ComSciCon, 2014–); Harvard/FAS Library Committee (2014–2019); American Astronomical Society Publications Task Force (2014); American Astronomical Society Publications WorldWide Telescope Force (2015); Astroinformatics and Astrostatistics Working Group of the American Astronomical Society (2012–); Sloan/UCLA Knowledge Infrastructures Advisory Committee (2012–); Board on Data, Ethics and Society (2014–2017); Dunlap Institute Advisory Committee (Chair, 2016–2019); Harvard Data Science Initiative Steering Committee (2017–2019); Vice Provost for Advances in Learning Advisory Committee (2017–19); Harvard FAS-Division of Continuing Education Standing Committee (Chair) (2019–); MPE Fachbeirat (2019–); CEASAR Advisory Board (2020–); (German) National Research Data Infrastructures (NFDI) Review Panel (2020); ORIGINS Excellence Cluster (Germany) Science Advisory Committee (2020–); NAS Committee on Astronomy and Astrophysics (2021–); NASA SciAct Working Group on The Science of Science (2021–) [Departmental and Conference Organizing Committees not listed here.]

## References

### 1988

Myers PC, Goodman AA (1988) Magnetic molecular clouds - Indirect evidence for magnetic support and ambipolar diffusion. *ApJ*, 329:392–405. <https://doi.org/10.1086/166385>

Myers PC, Goodman AA (1988) Evidence for magnetic and virial equilibrium in molecular clouds. *ApJL*, 326:L27–L30. <https://doi.org/10.1086/185116>

Goodman AA, Myers PC (1988) Magnetic and Virial Equilibrium in *Molecular Clouds. Molecular Clouds, Milky-Way and External Galaxies*, 315:128. [https://doi.org/10.1007/3-540-50438-9\\_250](https://doi.org/10.1007/3-540-50438-9_250)

### 1989

Bastien P, Goodman AA, Myers PC, Ménard F (1989) Linear polarization maps of three molecular clouds. *JRASC*, 83:298.

Goodman AA, Crutcher RM, Heiles C, Myers PC, Troland TH (1989) Measurement of magnetic field strength in the dark cloud Barnard 1. *ApJL*, 338:L61–L64. <https://doi.org/10.1086/185401>

Goodman AA, Myers PC, Crutcher RM, Heiles C, Kazes I (1989) Measurement of the magnetic field in the molecular cloud B1. *The Physics and Chemistry of Interstellar Molecular Clouds - mm and Sub-mm Observations in Astrophysics*, 331:182–185. <https://doi.org/10.1007/BFb0119475>

### 1990

Goodman A (1990) Thermal shape fluctuations at constant energy. *Nuclear Physics A*, 520:567. [https://doi.org/10.1016/0375-9474\(90\)91175-Q](https://doi.org/10.1016/0375-9474(90)91175-Q)

Goodman AA, Bastien P, Menard F, Myers PC (1990) Optical polarization maps of star-forming regions in Perseus, Taurus, and Ophiuchus. *ApJ*, 359:363–377. <https://doi.org/10.1086/169070>

### 1991

Myers PC, Fuller GA, Goodman AA, Benson PJ (1991) Dense cores in dark clouds. VI - Shapes. *ApJ*, 376:561–572. <https://doi.org/10.1086/170305>

Myers PC, Goodman AA (1991) On the dispersion in direction of interstellar polarization. *ApJ*, 373:509–524. <https://doi.org/10.1086/170070>

### 1992

Goodman AA, Jones TJ, Lada EA, Myers PC (1992) The structure of magnetic fields in dark clouds - Infrared polarimetry in B216-217. *ApJ*, 399:108–113. <https://doi.org/10.1086/171907>

### 1993

Goodman AA, Benson PJ, Fuller GA, Myers PC (1993) Dense cores in dark clouds. VIII - Velocity gradients. *ApJ*, 406:528–547. <https://doi.org/10.1086/172465>

Crutcher RM, Troland TH, Goodman AA, Heiles C, Kazes I, Myers PC (1993) OH Zeeman observations of dark clouds. *ApJ*, 407:175–184. <https://doi.org/10.1086/172503>

## 1994

Ladd EF, Myers PC, Goodman AA (1994) Dense cores in dark clouds. 10: Ammonia emission in the Perseus molecular cloud complex. *ApJ*, 433:117–130. <https://doi.org/10.1086/174629>

Goodman AA, Heiles C (1994) The magnetic field in the Ophiuchus dark cloud complex. *ApJ*, 424:208–221. <https://doi.org/10.1086/173884>

## 1995

Goodman AA, Whittet DCB (1995) A Point in Favor of the Superparamagnetic Grain Hypothesis. *ApJL*, 455:L181. <https://doi.org/10.1086/309840>

Goodman AA, Jones TJ, Lada EA, Myers PC (1995) Does Near-Infrared Polarimetry Reveal the Magnetic Field in Cold Dark Clouds?. *ApJ*, 448:748. <https://doi.org/10.1086/176003>

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## 1996

Troland TH, Crutcher RM, Goodman AA, Heiles C, Kazes I, Myers PC (1996) The Magnetic Fields in the Ophiuchus and Taurus Molecular Clouds. *ApJ*, 471:302. <https://doi.org/10.1086/177970>

## 1997

Lazarian A, Goodman AA, Myers PC (1997) On the Efficiency of Grain Alignment in Dark Clouds. *ApJ*, 490:273–280. <https://doi.org/10.1086/304874>

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## 1998

Barranco JA, Goodman AA (1998) Coherent Dense Cores. I. NH<sub>3</sub> Observations. *ApJ*, 504:207–222. <https://doi.org/10.1086/306044>

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## 1999

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## 2001

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## 2002

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## 2003

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## 2004

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## 2006

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## 2007

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## 2008

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Rosolowsky EW, Pineda JE, Foster JB, Borkin MA, Kauffmann J, Caselli P, Myers PC, Goodman AA (2008) An Ammonia Spectral Atlas of Dense Cores in Perseus. *ApJS*, 175:509–521. <https://doi.org/10.1086/524299>

Foster JB, Román-Zúñiga CG, Goodman AA, Lada EA, Alves J (2008) Hunting Galaxies to (and for) Extinction. *ApJ*, 674:831–845. <https://doi.org/10.1086/524979>

## 2009

Li H-b., Dowell CD, Goodman A, Hildebrand R, Novak G (2009) Anchoring Magnetic Field in Turbulent Molecular Clouds. *ApJ*, 704:891–897. <https://doi.org/10.1088/0004-637X/704/2/891>

Pineda JE, Rosolowsky EW, Goodman AA (2009) The Perils of Clumpfind: The Mass Spectrum of Substructures in Molecular Clouds. *ApJL*, 699:L134–L138. <https://doi.org/10.1088/0004-637X/699/2/L134>

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## 2010

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Loinard L, Rodríguez LF, Gómez L, Cantó J, Raga AC, Goodman AA, Arce HG (2010) A reassessment of the kinematics of PV Cephei based on accurate proper motion measurements. *RevMexAA*, 46:375–383.

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Kauffmann J, Pillai T, Shetty R, Myers PC, Goodman AA (2010) The Mass-size Relation from Clouds to Cores. II. Solar Neighborhood Clouds. *ApJ*, 716:433–445. <https://doi.org/10.1088/0004-637X/716/1/433>

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Pineda JE, Goodman AA, Arce HG, Caselli P, Foster JB, Myers PC, Rosolowsky EW (2010) Direct Observation of a Sharp Transition to Coherence in Dense Cores. *ApJL*, 712:L116–L121. <https://doi.org/10.1088/2041-8205/712/1/L116>

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## 2011

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Offner SSR, Lee EJ, Goodman AA, Arce H (2011) Radiation-hydrodynamic Simulations of Protostellar Outflows: Synthetic Observations and Data Comparisons. *ApJ*, 743:91. <https://doi.org/10.1088/0004-637X/743/1/91>

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## 2012

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